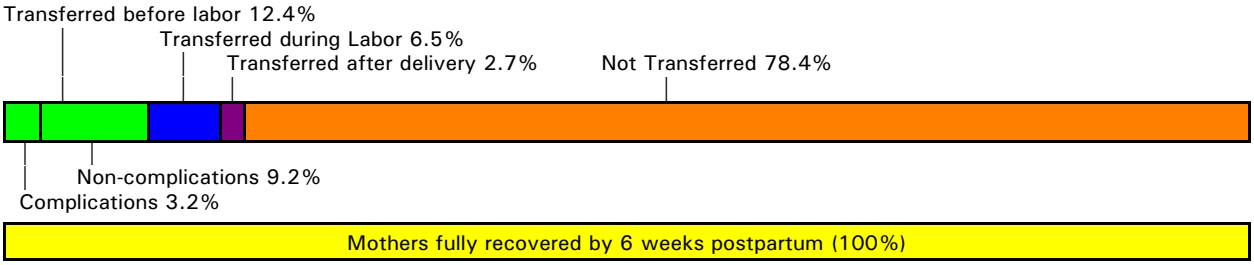
Utah's Licensed Direct-Entry Midwives
Report of Outcomes
July 1, 2007 through June 30, 2008

Executive Summary

The outcomes of Utah's Licensed Direct-Entry Midwives for this time period are excellent.

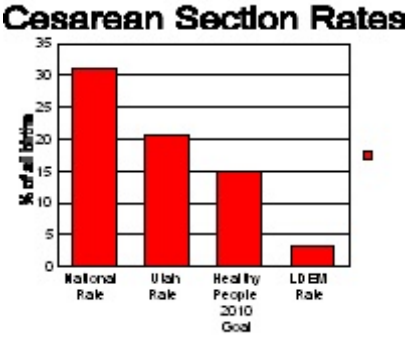
78,4% (291) of 371 LDEM clients delivered successfully without need to transfer at any point. 12.4% (46) of all clients transferred before the onset of labor, of whom the majority 73.4% (34) were for non-complications reasons such as moving away, changing midwives, miscarriages, or choosing to birth in the hospital. 6.5% (24) of all clients were transferred to the hospital during labor prior to the birth of the baby. All of these transfers occurred by private car; none were considered emergencies. Ten mothers (2.7% of all clients) were transferred after delivery of the baby, 6 by ambulance, 4 by private car. Necessary transfers to hospital were handled in a timely manner with good outcomes. All mothers were completely recovered by 6 weeks after delivery.

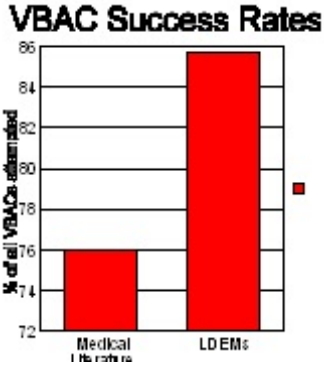
Transfers

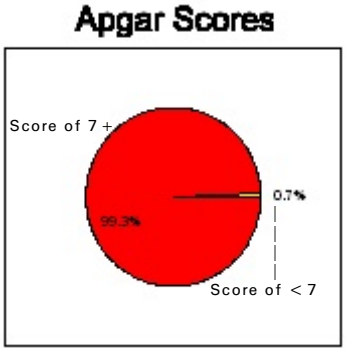


The condition of babies following their delivery by LDEMs is excellent with an average 5-minute Apgar score of 9.3 (out of 10), and 99.3% scoring 7 or better, One baby (0.3% of the 302 babies delivered by LDEMs) was transferred to the hospital for complications. This baby was fully recovered by 6 weeks postpartum.

LDEMs continue to have a remarkably low c-section rate (3.1%), which is less than one-fifth the rate of other Utah providers (21.5%) and one tenth that of providers nationally (31.1%), with excellent outcomes. LDEMs also surpass national vaginal-birth-after-cesarean success rates achieving 85.6% vs. the 76% described in the medical literature.







Outcomes of breech and twin deliveries were excellent. LDEMs appear to be using Pitocin safely and appropriately, with no injuries. Episiotomy is not being routinely performed (there were only three in this dataset).

Introduction

When the Direct-Entry Midwife Act was enacted on May 2, 2005, it included a provision (58-77-201(3)(c)) requiring the Licensed Direct-Entry Midwife board to present an annual report to the legislature's Health and Human Services Interim Committee describing the outcome data of Licensed Direct-entry Midwives (LDEMs), to be continued through 2011. This document is the third such report to the committee.

Report Limitations

Because of the implementation date of licensure the first year and in order to better meet calendar dates of the interim committee as well the six-week period after a delivery for which data must be collected, previous reports were based on less than a full year of data (8 months--January through August--for the 2006 report, 10 months--September 2006 through June 2007--for the 2007 report). This report is the first to cover a complete year of data (July 1, 2007 through June 30, 2008).

Sources of the Data

As required in the statute (58-77-201(3)(c)(ii)), this report is based largely on data reported to and extracted from the Midwives Alliance of North America (MANA) statistical database. This database is a robust collection of information about the work of direct-entry midwives, including some eight pages of information on each course of care, comprising almost 500 individual data items for each client. This database has been used to conduct research published in national and international journals, such as the recent study "Outcomes of planned home births with certified professional midwives: large prospective study in North America," published June 18, 2005 in the *British Medical Journal*.

All clients for whom data is submitted to MANA must be "logged" upon their booking of services with the midwife. This prevents the midwife from excluding data on clients with poor outcomes. Once a client is logged, the midwife must account for the outcome of that client. The data are therefore considered prospective (the gold standard for research data) and studies resulting from it are considered strongly defensible.

Occasionally, data for a client is not able to be entered in the MANA database. Sometimes it is because they were late to care, or for some reason they were not logged in time. To compile this report, therefore, in addition to data from the MANA database we used data from forms that *would have been* included in the database but could not be submitted due to technical reasons. These represent a minority of the cases in this report.

The additional information for this report that is not normally entered in the MANA database was entered by the LDEMs via a web-based application created for this purpose by the Information Technology staff at DOPL. We would like to express our deep thanks to all those who worked on this system for giving us a tool that so effectively streamlines the collection and analysis of the information.

Current Status of Licensed Direct-Entry Midwives

As of June 30, 2008, there were 16 LDEMs in Utah, the same as at the end of the 2007 reporting period. During the period of this report, 371 pregnant mothers began care with an LDEM, an increase of 161 (56%), although it should be kept in mind this reporting period is 20% longer than the last reporting period.

Outcomes

Note: Cases may be duplicated on various tables in this report because they fit in multiple categories.

Transfers of Care

The administrative rules for LDEMs list many conditions that require transfer to another provider. Of these, some are waivable by the client and some are mandatory. In addition to the rules-defined transfer conditions, LDEMs may transfer care for any number of other conditions.

Of the 371 clients who began care with an LDEM, 5.1% (19) experienced a waivable transfer condition as defined by rule, and of these, 9 clients (47.4%) chose to waive transfer. 2.4% of clients (9) experienced a mandatory transfer condition as defined by rule, and all of them were transferred in a timely manner.

Waivable Transfers

Rules-Governed Condition	Transfer Waived	Transfer Mode	Outcome	Comment
Antepartum				
Mild pre-eclampsia	No	n/a	n/a	
History severe postpartum bleeding	Yes	n/a	Excellent	
History severe postpartum bleeding	Yes	n/a	Excellent	
History severe postpartum bleeding	Yes	n/a	Excellent	Postpartum transfer for retained placenta.
History severe postpartum bleeding	Yes	n/a	Excellent	
Two previous c-sections	Yes	n/a	Excellent	
Two previous c-sections	Yes	n/a	Excellent	
Two previous c-sections	No*	n/a	n/a	*Client initially waived transfer, but transferred when she reached 42 weeks gestation.
Twins	Yes	n/a	Excellent	
Breech	No	n/a	n/a	
Breech	No	n/a	n/a	
Breech	No***	n/a	n/a	***Case occurred after the change in statute, so transfer was actually mandatory. Client was not offered a waiver.
Intrapartum				
Fetal distress	No	Private Car	Excellent	Vaginal delivery in hospital, 5 minute Apgar was 9.
Fetal distress	No	Private Car	Excellent	Meconium also present. Vaginal delivery in hospital. 5-min Apgar unavailable, but no complications were reported.
Breech	Yes	n/a	Excellent	Baby turned breech during second stage right before birth. No option for transfer.
Breech	Yes	n/a	Excellent	Fetus was cephalic at last prenatal visit. Upon arrival at birth, breech was suspected, but could not be confirmed. Parents were given the option of transferring at that time and they waived. Breech was confirmed upon SROM and due to imminent delivery, a transfer was not possible and was not desired by the parents.
Breech	No**	Private Car	Excellent	**Client initially waived transfer, but decided during labor to go to the hospital for a C-section.
Postpartum				
Retained Placenta	No	Ambulance	Excellent	Hospital stay 1 day
Retained Placenta	No	Private Car	Excellent	Hospital stay 2 days
Retained Placenta	No	Private Car	Excellent	Placenta removed & client sent home. No hospital stay.
Newborn				
(none)				

Mandatory Transfers			
Rules-Governed Condition	**Transfer Mode**	**Outcome**	**Comment**
Antepartum			
Rh isoimmunization	n/a	n/a	
Severe pre-eclampsia	n/a	Excellent	Severe pre-eclampsia discovered at routine prenatal visit. Transferred immediately to hospital. She was induced at 36.5 weeks. Vaginal birth. Released at 48 hours. No further complications. Blood pressure normal by 3 weeks postpartum.
Placenta previa	n/a	n/a	
Intrapartum			
Progressive labor prior to 36 weeks	Private Car	Excellent	Unknown apgar, but no complications within the first 4 hours or within the first 6 wks are reported.
Postpartum			
Hemorrhage	Ambulance	Excellent	Hospital stay 1 day
Hemorrhage	Ambulance	Excellent	Hospital stay 1 day.
Hemorrhage and Shock	Ambulance	Excellent	Due to retained succenturiate placental lobe. Hospital stay 1 day.
Hemorrhage and Shock	Ambulance	Excellent	Hospital stay 1 day
Newborn			
Non-transitory respiratory distress	Private Car	Excellent	Rising resp rate, heart rate and temp. began developing at 2 hours of age. Transfer by 2 1/2 hours of age. Congenital neonatal sepsis diagnosed. Physician determined that neonatal sepsis began in utero. Labor was under 2 hours with normal FHR and baby was born with 8/10 Apgars. No resuscitation or stimulation was needed. Heavy meconium was present in the amniotic fluid when SROM occurred 2 minutes prior to birth. Baby's vitals were being monitored very frequently due to the meconium and transfer occurred within 30 minutes of the beginning of change. Baby was treated for 6 days with antibiotics and released without further complications.

The total prenatal transfer rate was 12.4% (46), of whom the majority 73.4% (34) were for non-complications reasons such as moving away, changing midwives, miscarriages, or choosing to birth in the hospital.

All Antepartum Transfers			
Condition	**Mode**	**Outcome**	**Comment**
Waivable Transfers			
Mild pre-eclampsia	n/a	n/a	
Two previous c-sections	n/a	n/a	Client initially waived transfer, but took midwife recommendation to transfer when she reached 42 wks gestation
Breech (3 cases)	n/a	n/a	One case occurred after change in statute, so transfer was mandatory.
Mandatory Transfers			
Rh isoimmunization	n/a	n/a	
Severe pre-eclampsia	Private Car	Excellent	Severe pre-eclampsia discovered at routine prenatal visit. Tranferred immediately to hospital. She was induced at 36.5 weeks over the next two days. Vaginal birth. Released at 48 hours. No further complications. Blood pressure normal by 3 weeks postpartum.
Placenta previa	n/a	n/a	
Condition Not Specified in Rule			
Fetal demise	n/a	Fetal death	Turners Syndrome, hygroma, and hydrops. Discovered on sonogram at 20 weeks. Fetal demise at 22 weeks. Induction in hospital. No maternal complications.
Fetal demise	Private Car	Fetal death	Client called asking about possible pre-term labor (PTL). When asked about fetal movement, she wasn't sure and midwife had her come in to be checked. There was no evidence of PTL but no heartbeat was heard. Transferred to confirm fetal death and for induction. Pathology report indicated probable cord accident approximately 2 days prior.
PROM > 24 hrs with no labor	n/a	Excellent	Transferred to hospital for induction. No complications.
SROM at 35.5 with no labor.	n/a	Excellent	Arrangements for transfer were made and she went in next day for induction when labor did not begin during the night. All turned out well, baby breathed fine and they both left hospital next day.
Non-pregnancy-related back pain	n/a	Excellent	Client had been in a car accident years earlier and suffered residual back pain which worsened during the pregnancy. Both client and midwife felt she would be better off with a provider who could help her manage both prenatal and labor pain.

All Antepartum Transfers			
Condition	**Mode**	**Outcome**	**Comment**
Placenta previa	n/a	n/a	
Non-complications			
Midwife terminated care	n/a	n/a	Client refused to comply with midwife's requests for safe homebirth,
Chose to birth unassisted	n/a	n/a	
Miscarriage (3 cases)	n/a	n/a	
Chose hospital (11 cases)	n/a	n/a	These clients chose to birth in-hospital for non-complications reasons.
Changed midwives (6 cases)	n/a	n/a	
Moved (8 cases)	n/a	n/a	
Cost (2 cases)	n/a	n/a	

Of the remaining 325 clients who started their labors under the care of an LDEM, 7.4% (24) were transferred to the hospital prior to the birth of the baby. All of these transfers occurred by private car; none were considered emergencies.

All Intrapartum Transfers					
Condition	**Labor > 24hrs?**	**Delivery Mode**	**5-Minute Apgar**	**Outcome**	**Comment**
Waivable Transfers					
Fetal distress	No	Vaginal	9	Excellent	
Fetal distress	No	Vaginal	unknown	Excellent	Meconium also present.
Breech	No	C-sec	unknown	Excellent	Client initially waived transfer and labored at home, but then decided that she wanted to go to the hospital for a C-section.
Mandatory Transfers					
Progressive labor prior to 36 weeks	Unk	Vaginal	unknown	Excellent	
Condition Not Specified in Rule					
Failure to progress/ Pain Relief	Yes	C-sec	9	Excellent	
Failure to progress/Pain Relief	No	Vaginal	9	Excellent	Posterior baby.
Failure to progress/Pain Relief	No	Vaginal	10	Good	Baby was delivered by physician via vacuum. extraction resulting in cephalhematoma.
Failure to progress/Pain Relief	Yes	C-sec	unknown	Excellent	
Failure to progress/Pain Relief	Yes	C-sec	9	Excellent	
Failure to progress/Pain Relief	Yes	Vaginal	10	Excellent	Asynclitic
Failure to progress/Pain Relief	No	C-sec	9	Excellent	
Failure to progress/Pain Relief	No	Vaginal	9	Excellent	Mother unable to get the head down, transported for a forceps delivery.
Failure to progress/Pain Relief	No	Vaginal	10	Excellent	Mother dilated just fine, but when she began to push, could not bring baby down due to a large head. She was transported for a forceps delivery.
Failure to progress/Pain Relief	No	C-sec	unknown	Excellent	No data reported past 4 hrs postpartum.
Failure to progress/Pain Relief	No	C-sec	unknown	Excellent	Cephalo-pelvic disproportion
Failure to progress/Pain Relief	No	C-sec	8	Excellent	
Failure to progress/Pain Relief	Yes	Vaginal	9	Excellent	
Failure to progress/Pain Relief	No	Vaginal	8	Unknown	No postpartum information available
Failure to progress/Pain Relief	Yes	Vaginal	9	Excellent*	*Physical outcomes excellent, but mother had severe postpartum depression for which she was treated.
Failure to progress/Pain Relief	Yes	C-sec	unknown	Excellent	
Failure to progress/Pain Relief	Yes	C-sec	unknown	Excellent	
Failure to progress/Pain Relief	Yes	Vaginal	unknown	Excellent	
Non-complications					
Client choice	No	Vaginal	10	Excellent	Mother chose to transport because she was afraid.
Client choice	No	Vaginal	unknown	Unknown	Mother chose to deliver in the hospital for personal reasons. There were no complications during her pregnancy. No postpartum or outcome data is available.

Of the 301 mothers delivered by LDEMs, 10 (3.2%) were transferred after delivery of the baby, 6 by ambulance, 4 by private car. All of these mothers responded well and were released within 2 days; none had residual problems by their 6-week postpartum visit.

All Postpartum Transfers					
Condition	**Transfer Mode**	**Emer-gency?**	**Labor > 24 hrs?**	**Outcome**	**Comment**
Waivable Transfers					
Retained Placenta	Private Car	No	No	Excellent	Hospital stay 2 days
Retained Placenta	Private Car		No	Excellent	Placenta removed & client sent home. No hospital stay.
Retained Placenta	Ambulance	Yes	No	Excellent	Hospital stay 1 day
Mandatory Transfers					
Hemorrhage	Ambulance	Yes	No	Excellent	Hospital stay 1 day
Hemorrhage	Ambulance	Yes	No	Excellent	Hospital stay 1 day.
Hemorrhage and Shock	Ambulance	Yes	No	Excellent	Retained succenturiate placental lobe. Hospital stay 1 day.
Hemorrhage and Shock	Ambulance	Yes	No	Excellent	Hospital stay 1 day
Condition Not Specified in Rule					
3rd degree tear	Private Car	No	No	Excellent	Was repaired and sent home; never formally admitted.
4th degree tear	Private Car	No	No	Excellent	Mother repaired & released.
Non-Complication					
EMT Protocol	Ambulance	No	No	Excellent	This client was expecting to deliver at BellaNatal birthing suites, but delivered precipitously at home while packing the car. The family called 911, and before the midwife could arrive the EMT insisted on taking them to the hospital, although there was nothing wrong with either mother or baby. The hospital kept them a day and released them.

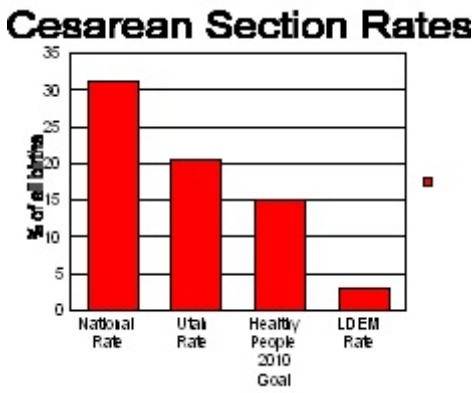
0.9% (3) of 302 babies delivered by LDEMs were transferred after birth, one by private car and two by ambulance. All babies were fine by 6 weeks postpartum.

All Newborn Transfers						
Condition	**Transfer Mode**	**Emer-gency**	**Labor > 24 Hrs**	**5-Min Apgar**	**Outcome**	**Comment**
Mandatory Transfers						
Non-transitory respiratory distress	Private Car	Yes	No	10	Excellent	Rising resp rate, heart rate and temp. began developing at 2 hours of age. Transfer by 2 1/2 hours of age. Congenital neonatal sepsis diagnosed. Physician determined sepsis began in utero. Labor was under 2 hours with normal FHR and baby was born with 8/10 Apgars. No resuscitation or stimulation was needed. Heavy meconium was present in the amniotic fluid when SROM occurred 2 minutes prior to birth. Baby's vitals were monitored very frequently due to the meconium and transfer occurred within 30 minutes of the beginning of change. Baby was treated for 6 days with antibiotics and released without further complications.
Non-Complications						
EMT Protocol	Ambulance	No	No	9	Excellent	The baby was born precipitously while the midwife was on the way. Because the midwife was not there yet, the mother called 911. The EMT/Paramedics arrived to find a healthy and breathing baby, but because the mother reported the baby did not breathe "immediatly" at birth, they transported the baby. Although there were no problems with the baby, it was admitted to the NICU and observed for two days. No problems were ever found. Both parents and midwife feel this was a "punitive" NICU admission that was completely unnecessary.
EMT Protocol	Ambulance	No	No	10	Excellent	This client was expecting to come to BellaNatal birthing suites, but delivered precipitously at home while packing the car. The family called 911, and before the midwife could arrive the EMT insisted on taking them to the hospital, although there was nothing wrong with either mother or baby. The hospital kept them a day and released them.

Overall, the transfer rate from LDEM care to hospital-based provider care once labor began was 11.4% (37 of 325). In all 37 transfers, the outcomes were good for both mothers and babies, with no residual problems by six weeks post-delivery.

Cesarean Sections

Of the 325 laboring women under the care of LDEMs, 3.1% (10) were subsequently delivered by c-section in the hospital. The outcomes for both babies and mothers in these cases were excellent. A 3.1% c-section rate is a remarkable statistic! For comparison, the national c-section rate is 31.1%, Utah's c-section rate is 21.5%[1], and the Healthy People 2010 c-section rate goal is 15%[2]



Breeches, Twins, and VBACs

Some parties have expressed concern about LDEMs delivering breech babies, twins, or mothers delivering vaginally after having had a c-section (VBAC–Vaginal Birth After C-section). The statute as passed in 2005 and the rules as of July 2007 did not prohibit LDEMs from conducting these deliveries. In the 2008 legislative session the statute for LDEMs was amended regarding breeches, twins, and VBACs. The changes to the statute took effect May 5, 2008. So, for the vast majority of the reporting period (July 1, 07-May 5, 08), LDEMs were delivering under the old statute and rules. There was not enough time to change the reporting database to reflect changes in the statute, so all data this period is reported as if the old statute and rules were in effect the entire period.

For the 371 clients under LDEM care in this dataset, 1.6% of babies (6) were breech. Four of the mothers with breech babies (66.7%) chose to transfer to the hospital prior to labor. Two (33.3%) were delivered by the LDEMs at home with excellent outcomes.

Breeches

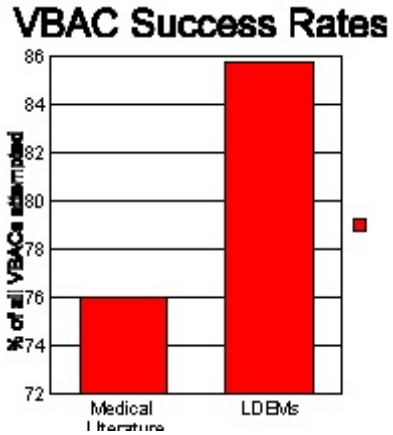
Discovered	Transferred?	Apgar	Outcome	Comment
Antepartum	Yes	n/a	n/a	
Antepartum	Yes	n/a	n/a	
Antepartum	Yes	n/a	n/a	This case occurred after the change in statute, so this transfer was actually mandatory. Client was not offered a waiver.
Antepartum	Yes	n/a	Excellent	Client initially waived transfer and labored at home, but then decided that she wanted to go to the hospital for a C-section.
Intrapartum	No	8	Excellent	Breech was discovered during second stage, baby was small and flipped breech right before birth. No option for transfer
Intrapartum	No	10	Excellent	Fetus was presenting cephalic at last prenatal visit. Upon arrival at birth, breech presentation was suspected, but could not be confirmed. Parents were given the option of transferring at that time. They waived the transfer. Breech was confirmed upon SROM and due to imminent delivery, a transfer was not possible and was not desired by the parents.

[1] Centers for Disease Control/National Center for Health Statistics. *Table D. Percentage of live births by cesarean delivery: United States and each state and territory, final 2005 and preliminary 2006*. http://cdc.gov/nchs/data/nvsr/nvsr56/nvsr56_07_tables

[2] Centers for Disease Control, National Vital Statistics Reports Volume 54 Number 4, *Trends in Cesarean Rates for First Births and Repeat Cesarean Rates for Low-Risk women: United States, 1990-2003*, September 22, 2005, pg. 2. http://cdc.gov/nchs/data/nvsr/nvsr54/nvsr54_04.pdf.

There was 1 set of twins in this dataset. They were delivered at home by the LDEM with excellent outcomes.

There were 15 attempted VBACs in this dataset. One transferred during labor for lack of progress, where she had another c-section. One was also breech in labor and transferred for a c-section. One transferred for forceps delivery. Of the remaining 12 VBAC clients, all were delivered vaginally at home without uterine rupture or complications. All 15 VBAC clients had excellent outcomes. The LDEM VBAC success rate of this dataset is 12/14 or 85.7%. This success rate is better than the rates quoted in the medical literature of about 76%[3]



Length of Labors

There has been some concern regarding the length of time clients labor under LDEM care, especially whether there are an excessive number of mothers laboring longer than 24 hrs, whether outcomes are inferior in mothers laboring longer than 24 hours, whether transfers are being excessively delayed and whether outcomes are poorer when transfer occurs after 24 hours of labor.

Of the 325 clients laboring under LDEM care, 4.6% (15) experienced a labor of greater than 24 hours. Of these, 40.0% (6) were delivered by the LDEM and 60.0% (9) were transferred. Of the 9 transferred, (5) subsequently had a c-section. The c-section rate of clients laboring more than 24 hours is 33.3% (5/15). The outcomes for mothers and babies in all cases were excellent, with babies experiencing an average 5-minute Apgar score of 9.1.

Labors Longer Than 24 Hours

Transfer?	Apgar	Outcome	Delivery	Comment
No	9	Excellent	Vaginal	
No	9	Excellent	Vaginal	
No	9	Excellent	Vaginal	
No	9	Excellent	Vaginal	
No	10	Excellent	Vaginal	
No	8	Excellent	Vaginal	
Yes	9	Excellent	Vaginal	
Yes	9	Excellent*	Vaginal	*Physical outcome excellent, but treated for severe postpartum depression.
Yes	10	Excellent	Vaginal	Asynclitic
Yes	unknown	Excellent	Vaginal	
Yes	unknown	Excellent	C-sec	
Yes	unknown	Excellent	C-sec	
Yes	unknown	Excellent	C-sec	
Yes	9	Excellent	C-sec	
Yes	9	Excellent	C-sec	

[3]Lie, Desiree MD, MDEd. Trial of Labor After Cesarean Section (TOLAC): Updated Clinical Recommendations. American Academy of Family Physicians, 2005 as found at http://www.medscape.com/viewarticle/518434.

Use of Pitocin (Oxytocin)

Of the clients delivered by LDEMs (301), 13.3% (40) received Pitocin (oxytocin) to prevent or stop a postpartum hemorrhage, as allowed by the statute (58-77-102(8)(f)(iv-v)). Only 5 of these mothers needed to be transferred, and there were no residual problems by six weeks postpartum. We believe this shows that the ability to legally use Pitocin has greatly improved the LDEMs' ability to safely and effectively control hemorrhages at home, resulting in better outcomes.

Episiotomies

LDEMs are permitted to cut an episiotomy (to enlarge the vaginal opening) in an emergency (58-77-102(8)(k)(ii)). Of the clients delivered by LDEMs (301), 1.0% (3) received an episiotomy. The outcomes for both mothers and babies were excellent in all cases.

APGAR Scores

The Apgar Score is a measurement of newborn well-being taken at 1 minute and 5 minutes after birth. Any score 7 or above is a good score[4]. We have reported five-minute scores because they are most predictive of the likelihood of significant complications. Of the 300 scores reported for babies born into the hands of LDEMs, 99.3% (298) had a score of 7 or better at five minutes.

LDEM Apgar Scores

Score of:	# Babies	Comment
10	149	
9	115	
8	30	
7	4	
6	1	Apgar was 3 at 1 minute. Baby was resuscitated and although 10-minute score was not recorded, the midwife reports it was "7+", that the baby was vigorous & nursing well one hour after birth, was not transported, and has experienced no complications.
5	1	Apgar was 7 at 1 minute, but declined by 5 minutes. 2 puffs with bag & mask resulted in a quick improvement, 10-minute Apgar was 9.
4	0	
3	0	
2	0	
1	0	
0	0	
Average:	**9.3**	

When an LDEM client's baby is born in the hospital subsequent to in-labor transfer, sometimes the Apgar score is known to the midwife, and sometimes it is not. For example, if the baby is born by c-section the midwife is not in the room when the Apgar is taken and may not be able to obtain the score. If the midwife is present at the birth, she will attempt to obtain and report the score. In this dataset, there were 24 babies born in hospital after their mothers were transferred in labor. Of these, 62.5% (15) Apgar scores were reported. 100% of these scores were 7 or better.

Hospital-born Apgar Scores

Score of:	# Babies
10	2
9	11
8	2
7 to 0	0
Average:	**9.0**

[4]Center for Disease Control/National Center for Health Statistics: National Vital Statistics Reports, Volume 55, Number 1. Births: Final Data for 2004, September 29, 2006, p. 24.

Maternal Complications

Of the 325 women who began labor under the care of LDEMs, 2.5% (8) experienced significant complications that developed after the immediate postpartum period. All of these problems were resolved by the 6-week postpartum visit.

Maternal Postpartum Complications

Condition	Resolved by 6 weeks postpartum
Anemia resulting from hemorrhage (4 cases)	Yes
Severe postpartum depression	Yes (referred, treated & controlled by 6 weeks postpartum)
Kidney stone	Yes
Hypertension	Yes
Hematoma	Yes

Newborn Complications

Of the 302 babies delivered by LDEMs, 2.0% (6) experienced complications within the first four hours of life. All but one were resolved by 6 weeks postpartum. The one complication not resolved by 6 weeks was a birth defect (cleft lip) that was scheduled to be repaired by 3 months postpartum.

Newborn Complications in the First Four Hours of Life

Condition	Resolved Within 4 Hours	Resolved by 6 Weeks	Comment
Some expiratory grunting	Yes		
Temp instability & expiratory grunting	Yes		
Congenital neonatal sepsis	No	Yes	Infection in newborn determined to predate delivery
Cephalhematoma	No	Yes	
Intrauterine growth retardation	No	Yes	
Cleft Lip	No	No	Surgery to repair scheduled at 3 months of age

The mortality rate for both mothers and babies was 0%.

Prepared for the Health and Human Services Interim Committee of the Utah State Legislature
October 2, 2008
by the
Licensed Direct-Entry Midwife Board
Holly Richardson LDEM, Chair